

were counted and removed every day during ten days. The effect of the treatments on the total percentage germination were subjected to ANOVA and the relationship of germination over time was studied using a functional approach employing the three-parameters Weibull function. "Radicchio di Chioggia Precoce" showed higher germination percentage than "Palla Bianca" that demonstrated to be more temperature sensitive. The temperature did not modify cumulative percentage of germination, which was affected by water potential. All treatments slightly influenced percentage germination but mainly the Weibull equation parameters "a" and "b" determined the curve shape and thus the germination rate. PEG proved to be more effective for seed germination and to be easier to use than  $\text{KNO}_3$ .

### **PHYSIOLOGICAL MATURITY OF CARROT SEEDS CV. ALVORADA UNDER TROPICAL CONDITIONS**

**AINFO**

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Carrot is one of the five more important vegetable crops in Brazil, with a cultivated area of 27.000 ha and a production of 681.000 ton. Annually, about 140 ton of seeds are traded in the whole country, with 70 to 80% of 'Brasilia' cultivar group. In spite of the cultivars derived from 'Brasilia' show high adaptation under tropical conditions, seeds from this group have lower quality when compared, for instance, to 'Nantes' group, generally grown during the winter season. This study was carried out at Brasilia, DF, during the year of 2000, aiming to determine the physiological maturity in carrot seeds cv. Alvorada ('Brasilia' group), in order to establish the best time to harvest high quality seeds. Seed harvesting began 14 days after anthesis, in weekly intervals, in a total of 12 harvest dates. Seed moisture content, dry seed weight, standard germination, germination first count, field emergence, accelerated aging and controlled deterioration were evaluated. Seed physiological maturity occurred between 49 and 56 days after anthesis, when seeds reached the maximum dry weight, germination and vigor.

### **PREPARATION TIMING OF MOIST SUBSTRATE TO SOLARIZATION AS METHOD FOR WEED CONTROL**

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Solarization is a method of heating moist soil by covering it with plastic sheet to trap solar radiation. The main required elements are transparent plastic sheets to cover moist soil, and intense solar radiation. The role of the plastic is to prevent evaporation (thereby